

REMARKS

Claim 27 has been added based on Examples 1-5 as set forth in Table 1 on page 11 in the specification, and claim 28 has been added based on Examples 6-8 as set forth in Table 1 on page 11 in the specification.

Entry of the above amendment is respectfully requested.

Obviousness Rejections over Fukushima

On page 2 of the Office Action, claims 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al (US 5,969,867). Further, on page 3 of the Office Action, claims 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al (US 5,969,867).

The Examiner's Position

The Examiner's position is basically that Fukushima et al teach an active ray-curable composition (Abstract) comprising an active energy ray-sensitive radical polymerization initiator (5:4-5) {photoinitiator}, bis(4-(meth)acryloyldiethoxyphenyl) sulfide (6:46-47), and 2-phenylphenyl(meth)acrylate (8:2) {o-phenylphenyl acrylate}, wherein the composition comprising 10-90 parts by weight of instant structure (1) (7:3-5, wherein instant structure (1) is equivalent to reference component (B-1)) and 1-50 parts by weight of instant structure (2) (8:15-17, wherein instant structure (2) is equivalent to reference component (B-2)). The Examiner considers that the selection of bis(4-(meth)acryloyldiethoxyphenyl) sulfide as reference component B-1 and 2-phenylphenyl(meth)acrylate as reference component B-2 would have been easily envisioned by one of ordinary skill in the art, given the disclosure. Also, the Examiner

indicates that Fukushima et al teach a method for producing a lens sheet comprising casting the active energy ray-curable composition into a lens mold and irradiating for curing (9:7-16).

With respect to the arguments presented in the Amendment filed October 29, 2008, the Examiner clarifies that BPA-5(BPM-5) in Example 11 is used as reference component B-1, and is interchangeable with other compounds disclosed by the reference as component B-1, including those taught by formula II, such as bis(4-(meth)acryloyloxydiethoxyphenyl)-sulfide. Also, while formula (B-1) in Fukushima is quite broad, the Examiner directs Applicant's attention to the explicit disclosure of bis(4-(meth)acryloyloxydiethoxyphenyl)-sulfide (6:46-47).

Applicants' Response

In response to this rejection, Applicants submit that the present invention is directed to a particular combination of components, namely, the combination of components (A) and (B) as recited in claim 1, which provides unexpectedly superior results and is not obvious accordingly.

In this regard, Applicants direct the Examiner's attention initially to the results presented in Table 1 on page 11 in the specification, which demonstrate the unexpected superiority of the claimed combination of components (A) and (B).

Moreover, Applicants submit herewith a Rule 132 Declaration further demonstrating the unexpected superiority of the present invention.

In particular, invention compositions (Examples 2 and 3) were compared with comparative compositions (Comparative Examples 3' and 4') which were identical to the invention compositions except that component (A) was replaced with MPSMA, i.e., bis(4-methacryloylthiophenyl) sulfide, which is used in the Examples of Fukushima et al.(US 5,969,867).

As can be seen from Table A in the Declaration, the compositions of Comparative Examples 3' and 4', which included MPSMA in place of component (A) of the present invention, were poor in workability.

In contrast, the compositions of Examples 2 and 3, which included component (A) of the present invention, were excellent in workability.

Therefore, the Declarant concludes that the present invention provides unexpectedly superior results.

Thus, Applicants submit that the present invention is not obvious over the Fukushima, and withdrawal of these rejections is respectfully requested.

Obviousness Rejection over Fukushima in view of Baba

On page 4 of the Office Action, claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al (US 5,969,867) in view of Baba et al (JP 09-235338).

The Examiner's Position

The Examiner's position is basically that while Fukushima et al does not teach the diphenyl containing monoacrylate monomer being p-cumylphenol (meth)acrylate, Baba teaches a composition comprising reference component A being an acrylated bisphenol S compound ([0009]), and reference component B being a p-cumylphenol (meth)acrylate ([0012], abstract), wherein the p-cumylphenol acrylate reduces the contraction of the composition during hardening ([0013]). The Examiner notes that Baba et al teach the p-cumylphenol acrylate to contain a repeating ethylene oxide unit ([0006], [0012]). However, the Examiner indicates that a person of ordinary skill in the art would have found it obvious to have added p-cumylphenol acrylate, as taught by Baba et al, to the composition of Fukushima et al, motivated by Baba's teaching that

the addition of p-cumylphenol acrylate to the composition reduces the contraction during hardening ([0013]). Furthermore, the Examiner asserts it would have been obvious to use the p-cumylphenol acrylate compound of Baba et al, wherein the ethylene oxide unit is repeated zero times, as it is the simplest version of the p-cumylphenol (meth)acrylate and a natural starting point.

Applicants' Response

In response, Applicants note initially that as can be seen the structural formula in paragraph [0006] of Baba, component (B) of Baba must include at least one ethylene oxide-type repeating unit, because "n" in that formula is 1 to 5.

Moreover, as set forth in the Abstract of Baba, component (B) is produced, e.g., by reacting p-cumylphenol, etc. with ethylene oxide, etc., and reacting the obtained compound with (meth)acrylic acid.

Thus, contrary to the Examiner's assertion, Applicants submit that it would not have been obvious to use the p-cumylphenol acrylate compound of Baba et al wherein the ethylene oxide unit is repeated zero times, since such a compound is not even within the scope of component (B) disclosed in Baba.

In this regard, Applicants submit that contrary to the Examiner's assertion, paragraph [0013] of Baba does not teach that the addition of p-cumylphenol acrylate to the composition reduces the contraction during hardening. Rather, paragraph [0013] of Baba teaches that the addition of component (B) to the composition reduces the contraction during hardening. As noted above, component (B) of Baba must include at least one ethylene oxide-type repeating unit, and thus component (B) is not the specific compound p-cumylphenol (meth)acrylate as recited in claim 26.

Further, Applicants submit that component (B) does not teach or suggest the mono(meth)acrylate as recited in claim 25, because the recited mono(meth)acrylate is represented by formula (3) of the present invention, and formula (3) does not contain an ethylene oxide-type group, unlike Baba's component (B).

Accordingly, even if one were to combine Fukushima with Baba, one would not have arrived at the invention recited in claims 25 and 26.

Moreover, Applicants submit that the present invention provides unexpectedly superior results as discussed above and as set forth in the Rule 132 Declaration, and thus the present invention is not obvious for this additional reason.

Therefore, Applicants submit that the present invention should not be rejected as obvious over Fukushima in view of Baba, and withdrawal of this rejection is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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